

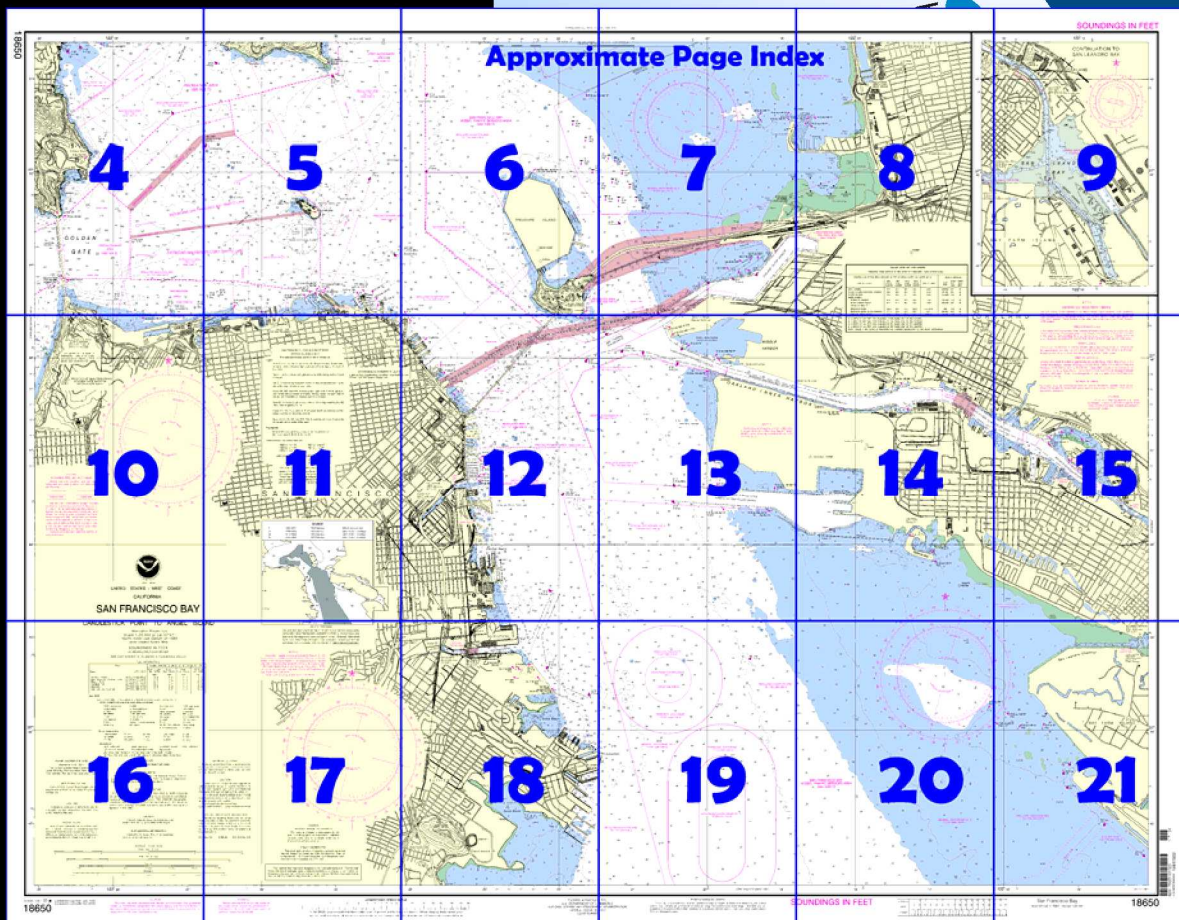
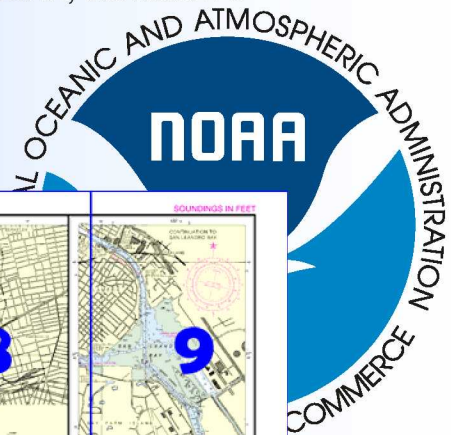
BookletChartTM

San Francisco Bay – Candlestick Pt to Angel Is (NOAA Chart 18650)



A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ✓ Complete, reduced scale nautical chart
- ✓ Print at home for free
- ✓ Convenient size
- ✓ Up to date with all Notices to Mariners
- ✓ United States Coast Pilot excerpts
- ✓ Compiled by NOAA, the nation's chartmaker.



Home Edition (not for sale)



What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

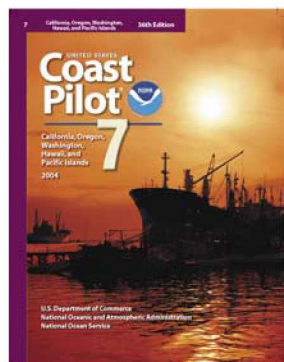
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot 7, Chapter 7 excerpts]

(270) **San Francisco**, one of America's great cities, occupies the N portion of the peninsula forming the S entrance to the bay. The 3-mile N shore of San Francisco from the Golden Gate Bridge to the main waterfront includes the **Presidio of San Francisco**; several yacht harbors; Government buildings and piers on Black Point; Aquatic Park; and Fisherman's Wharf. Shoals with depths less than 10 feet extend up to 0.2 mile from the shore.

(271) The charted **recreation area**

extending along this shore is intended primarily for use by recreation vessels. It should not be utilized by vessels 300 tons or more for through passage or for any other purpose, except in case of emergency or special circumstances.

(272) **Alcatraz Island**, 2.5 miles E of the Golden Gate Bridge, is one of the leading marks in entering San Francisco Bay. The small island is 148 feet high and has many buildings on it. Near the NW end of the island is a water tower, which is reported to be usually the only landmark visible when that area is in fog. **Alcatraz Light** (37°49.6'N., 122°25.3'W.), 214 feet above the water, is shown from a gray, octagonal pyramidal tower on the SE part of the island. Fog signals are on the extreme NW and SE ends of the island.

(278) **Yerba Buena Island**, 345 feet high and 2.5 miles SE of Alcatraz Island, is of small extent, irregular in shape, and covered with a scrubby growth of trees. On its summit is a former lookout tower and the Coast Guard operated San Francisco Vessel Traffic Service Operation Center and radar antenna site. **San Francisco Coast Guard Station** is on the E side of the island.

(280) When the prevailing W winds are blowing, deep-draft vessels proceeding to the berthing area on the E side of the island may have extreme difficulty making the 90° turn from the narrow channel between the 30-foot curves SE of Yerba Buena Island.

(291) There are several rocky patches with depths of 33 to 35 feet W and NW of Alcatraz Island that must be avoided by deep-draft vessels. The northwesternmost of these shoals is **Harding Rock**, marked by a lighted buoy equipped with a racon.

(339) **Islais Creek Channel** is entered 2.9 miles S of the Ferry Building. A dredged approach area with a project depth of 35 feet is off the entrance. The 3rd Street bascule bridge with a clearance of 4 feet crosses the creek about 0.6 mile above the entrance.

(349) **Aquatic Park**, 2.6 miles E of the Golden Gate Bridge, is a recreation area protected on the W by a curved pier extending out from Black Point and on the E by a pier that berths historic ships of the National Maritime Museum. The basin is closed to power vessels, and other vessels must stay offshore away from buoys marking a swimming area. The **speed limit** is 3 knots. Depths of 9 to 16 feet are inside the basin. Small craft can find anchorage in about 13 feet. Permission to anchor for more than 24 hours must be obtained from the Aquatic Park Ranger Station.

(353) **South Beach Harbor**, extending from 0.85 mile to 1.1 miles SE of the Ferry Building is a marina with 700 slips. Depths in the approach and alongside are reported to be 15 feet. It is protected by a breakwater marked by private lights. Private lights also mark the N and S entrances to the marina.

(354) **Central Basin**, 1.9 miles S of the Ferry Building, has depths of 10 to 24 feet. Limited berthing facilities are on the W shore of the basin. Gasoline, water, covered and open storage, and some small-boat supplies are available. There are a surfaced boat ramp and a portable lift; hull and engine repairs can be made. Hull repairs can also be made at a boatbuilding and maintenance school in the SW corner of the basin.

(355) On the N side of **Hunters Point**, 3.8 miles S of the Ferry Building, are two repair facilities. The largest marine railway can handle craft to 300 tons or 120 feet for hull and engine repairs.

(378) **Encinal Basin**, on the Alameda side of the Oakland Inner Harbor opposite Coast Guard Island, has facilities which are owned by Encinal Terminals. Depths in the basin are about 30 feet.

(385) **Ballena Bay Yacht Harbor**, a large small-craft harbor, is on the E side of an island along the S shore of Alameda. This harbor offers safe refuge in storms. A private light marks the entrance to the harbor. In February 2001, a reported depth of 7 feet was in the approach to the harbor; a depth of 8 feet was reported alongside the berths.

(388) The Port of Oakland encompasses two areas: Outer and Inner Harbors. **Oakland Outer Harbor** is between the Ben E. Nutter Container Terminal on the S and the San Francisco-Oakland Bay Bridge approach on the N.

(417) **San Leandro Channel** connects San Leandro Bay with San Francisco Bay. The channel is very narrow with shallow uneven depths at the E end. Mariners should seek local knowledge before transiting the channel.

Table of Selected Chart Notes

GOLDEN GATE BRIDGE
SUSPENSION BRIDGE
VERT CL 225 FT CENTER
VERT CL 213 FT N PIER
VERT CL 211 FT S PIER

The center of the span is marked by three white lights vertically in line above a fixed green light on each side.

Corrected through NM Sep. 26/09
Corrected through LNM Sep. 15/09

HEIGHTS

Heights in feet above Mean High Water.

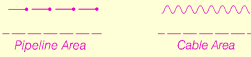
RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

PLANE COORDINATE GRID

(based on NAD 1927)

The California State Plane Coordinate Grid (Zone III) is indicated by dashed ticks at 10,000 foot intervals. The last three digits are omitted.

NOTE D

High speed ferries operate in the San Francisco Bay. Mariners are cautioned that these craft move very rapidly and may transit waterways at angles to the normal direction of traffic. Ferries may deviate from these routes if necessary. Mariners should exercise caution when transiting between the origin or terminus of a charted ferry route and the actual ferry docking facility. Go to www.sfmv.org for additional information on the Ferry Traffic Routing Protocol.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

○ (Accurate location) o (Approximate location)

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 for important supplemental information.

NOTE B

Anchoring or dragging anchor within the charted limits of the Bay Area Rapid Transit (BART) tunnel crossing is prohibited (33 CFR 110.224, g, 2).

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

Mercator Projection
Scale 1:20,000 at Lat 37°47'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Mt. Pise, CA KHB-49 162.40 MHz WX2

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

CAUTION

Fixed and floating obstructions, some submerged, may exist within the magenta tinted bridge construction area. Mariners are advised to proceed with caution.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 11th Coast Guard District in Alameda, California or at the Office of the District Engineer, Corps of Engineers in San Francisco, California.

Refer to charted regulation section numbers.

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, [United States Coast Pilot](#).

Additional information can be obtained at nauticalcharts.noaa.gov.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Department of the Navy and U.S. Coast Guard.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83) and for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.260" southward and 3.891" westward to agree with this chart.

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

NOTE C

SAN FRANCISCO VESSEL TRAFFIC SERVICE

The U.S. Coast Guard operates a mandatory Vessel Traffic Services (VTS) system in San Francisco Bay and surrounding areas. Vessel operating procedures and designated radiotelephone frequencies are published in 33 CFR 161, the U.S. Coast Pilot, and/or the VTS User's Manual. The entire area of the chart falls within the Vessel Traffic Services (VTS) system.

PRECAUTIONARY AREA

Traffic within the Precautionary Area consists of vessels maneuvering on various courses. Vessels transiting the precautionary area should, when possible, keep the centerline of the area to port providing for a counterclockwise movement of vessels within the area. Mariners are advised to use extreme caution when navigating within this area.

TRAFFIC LANES

Traffic Lanes are intended for use by vessels 1600 gross tons and over; arrows indicate the approximate direction of traffic flow within each lane. The provisions of Inland Navigation Rule 9 apply to all vessels navigating in the Traffic Lanes.

DEEP WATER ROUTE

Vessels with a draft of 45 feet or greater should use the "Deep Water Route" east of the Golden Gate Bridge. Vessels intending to use the Deep Water Route should notify San Francisco Traffic before passing Mile Rocks. Deep draft vessels will neither meet nor overtake in the Deep Water Route. Deep draft vessels bound for anchorage 9 should pass east of Blossom Rock, then through the C-D or D-E span of the San Francisco-Oakland Bay Bridge.

RECREATION AREAS

Recreation areas are intended primarily for use by recreation vessels. Such areas should not be used by vessels 300 gross tons or more except in case of emergency or special circumstances.

PRINT-ON-DEMAND CHARTS

This chart is available in a version updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts.

TIDAL INFORMATION

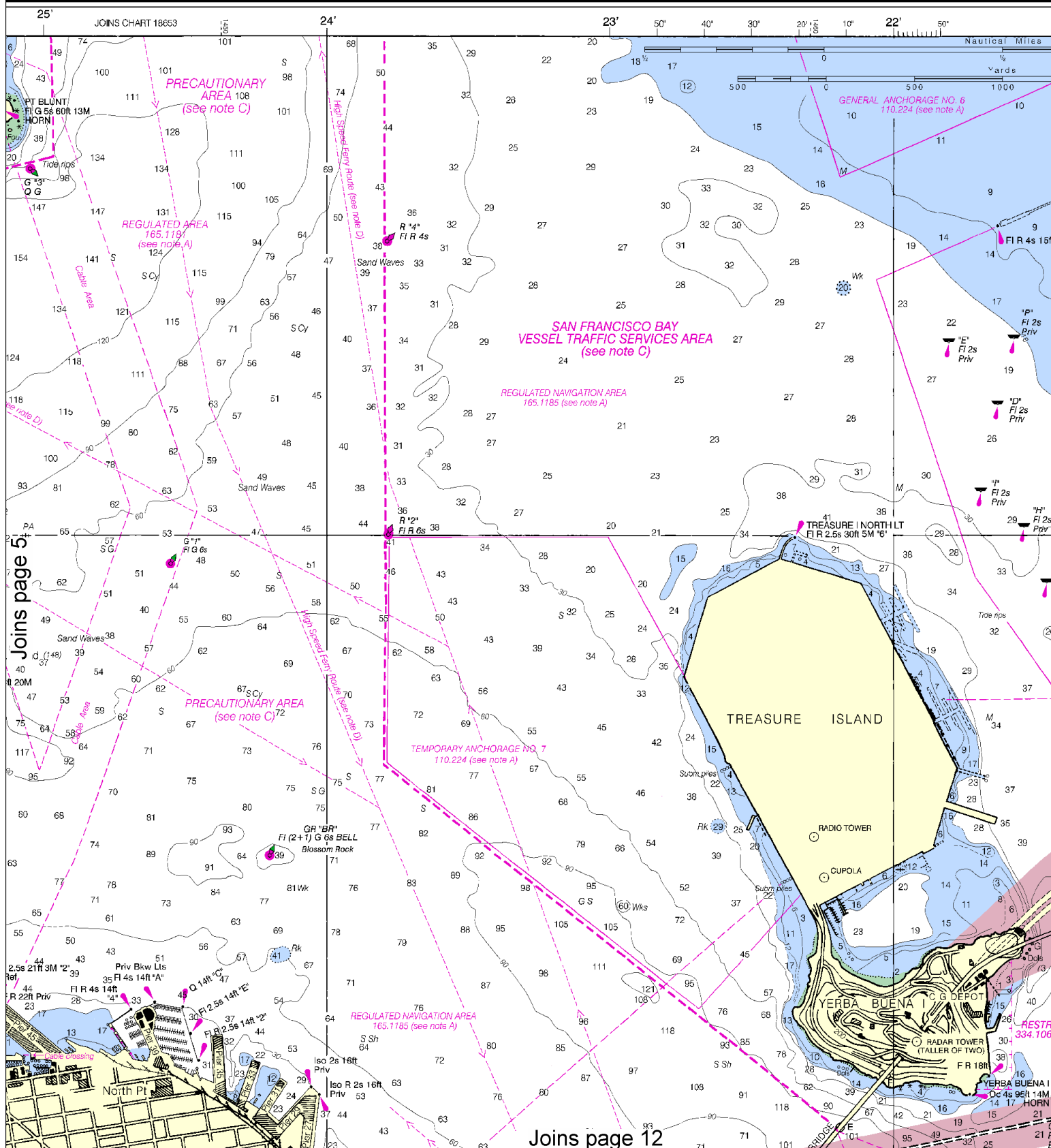
PLACE	Height referred to datum of soundings (MLLW)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
NAME	(LAT/LONG)	feet	feet	feet
Alcatraz Island	(37°50'N/122°25'W)	5.8	5.2	1.1
San Francisco (Golden Gate)	(37°48'N/122°28'W)	5.8	5.2	1.1
Rincon Point	(37°47'N/122°23'W)	6.3	5.7	1.1
Oakland Pier	(37°48'N/122°20'W)	6.2	5.6	1.1
Alameda	(37°46'N/122°18'W)	6.6	5.8	1.1
San Leandro Channel	(37°42'N/122°12'W)	7.2	6.6	1.1

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>.

(Aug 2009)



Number line showing the range of possible values for the number of people who did not vote. The number line ranges from 500 to 2500. There are three bars: one from 500 to 750, one from 750 to 1000, and one from 1500 to 2000. The label "Parus" is above the number line.



6



Printed at reduced scale.

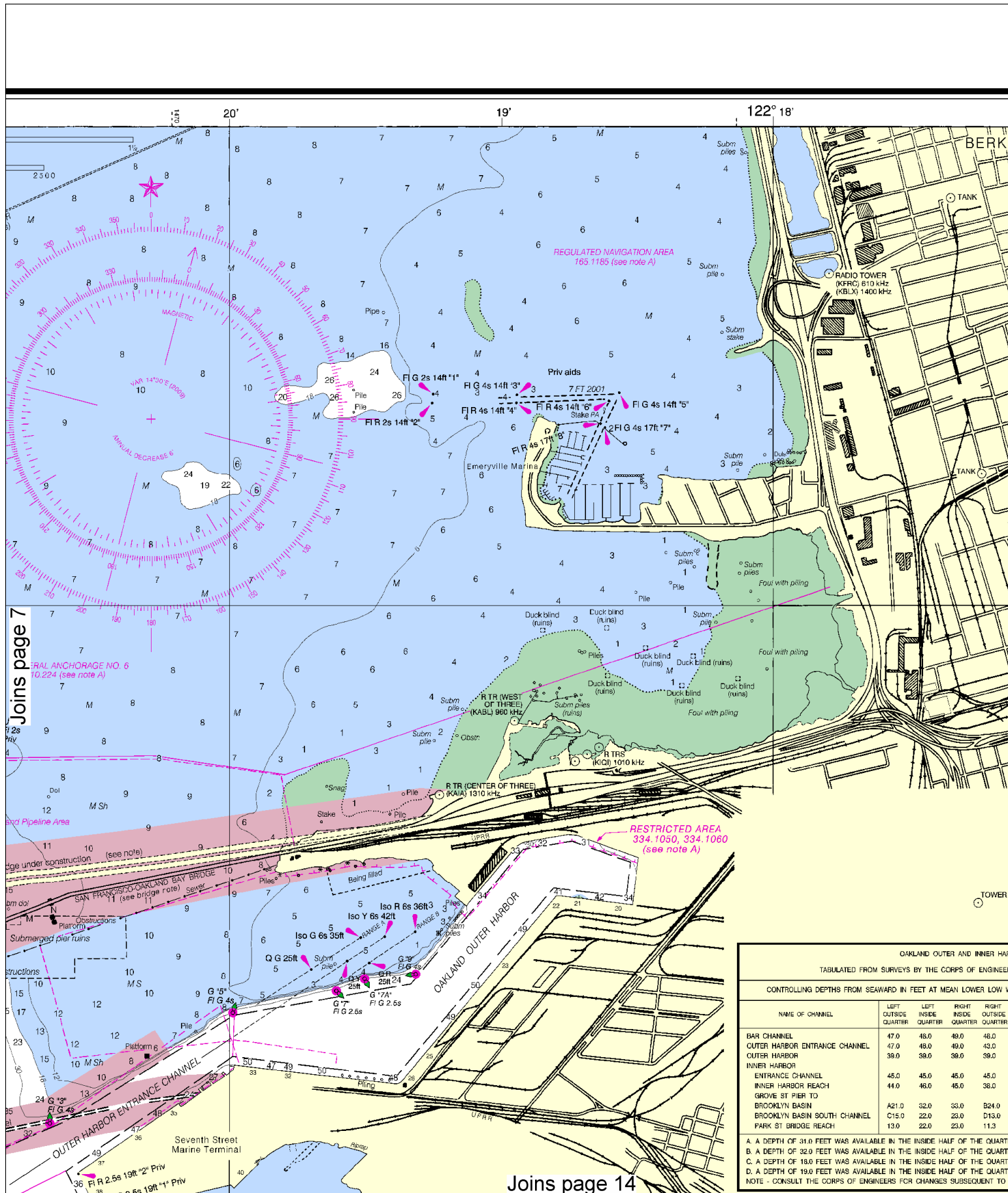
SCALE 1:20,000
Nautical Miles

See Note on page 5.

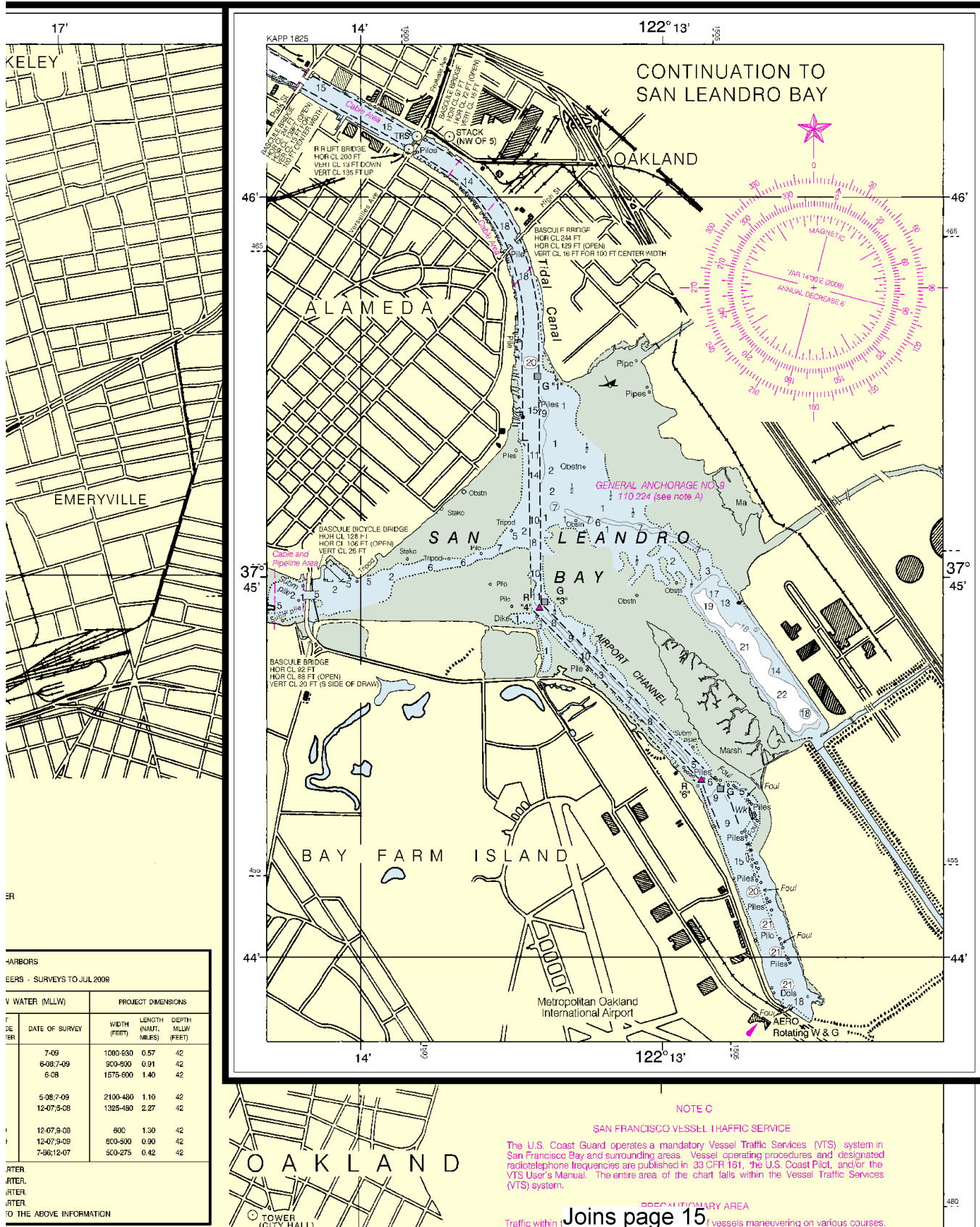


This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0510 2/2/2010,
NGA Weekly Notice to Mariners: 0910 2/27/2010,
Canadian Coast Guard Notice to Mariners: n/a .

7

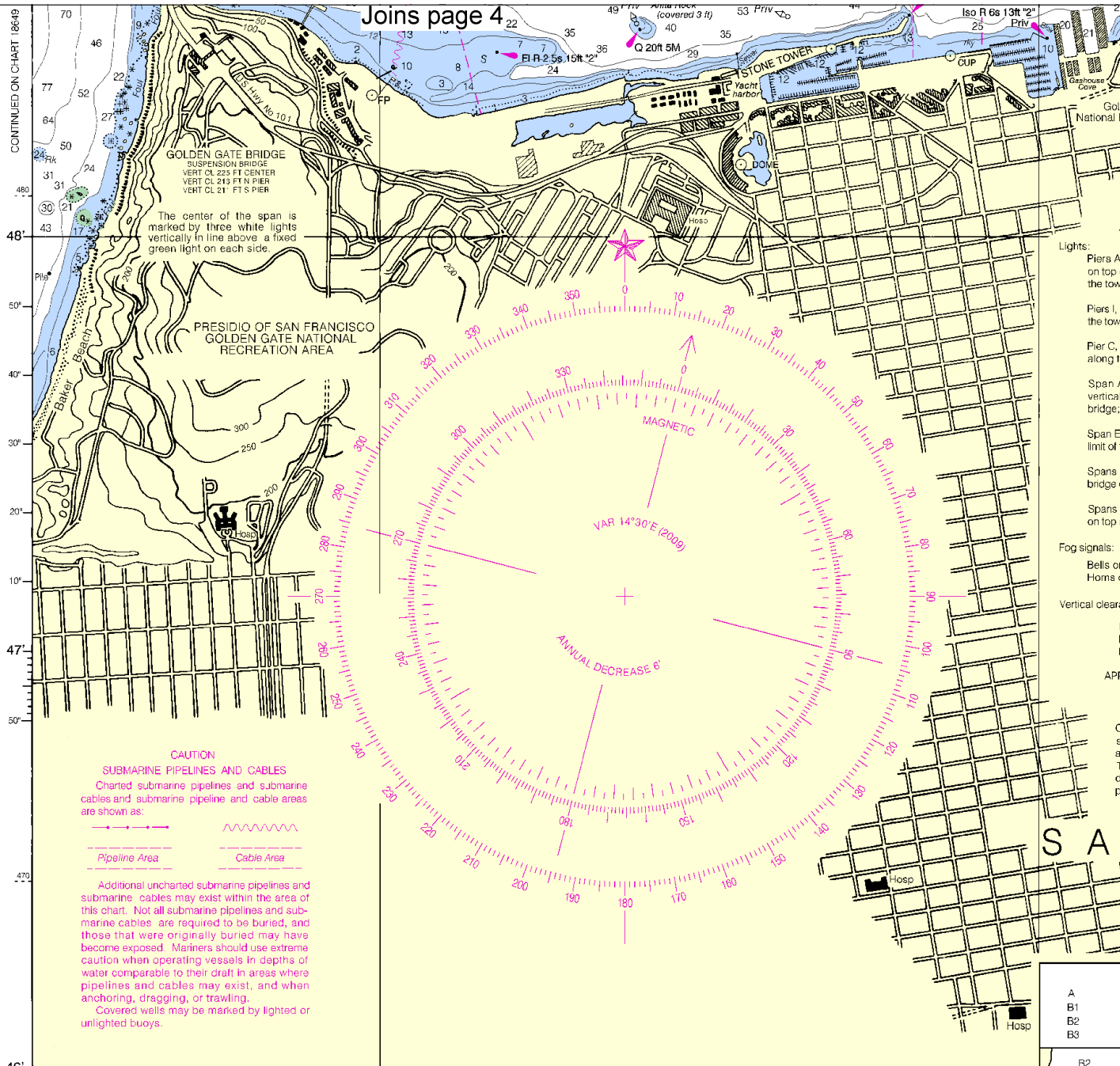


SOUNDINGS IN FEET



CONTINUED ON CHART 18649

Joins page 4



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - WEST COAST

CALIFORNIA

SAN FRANCISCO BAY

CANDLESTICK POINT TO ANGEL ISLAND

Merca Joins page 16

10

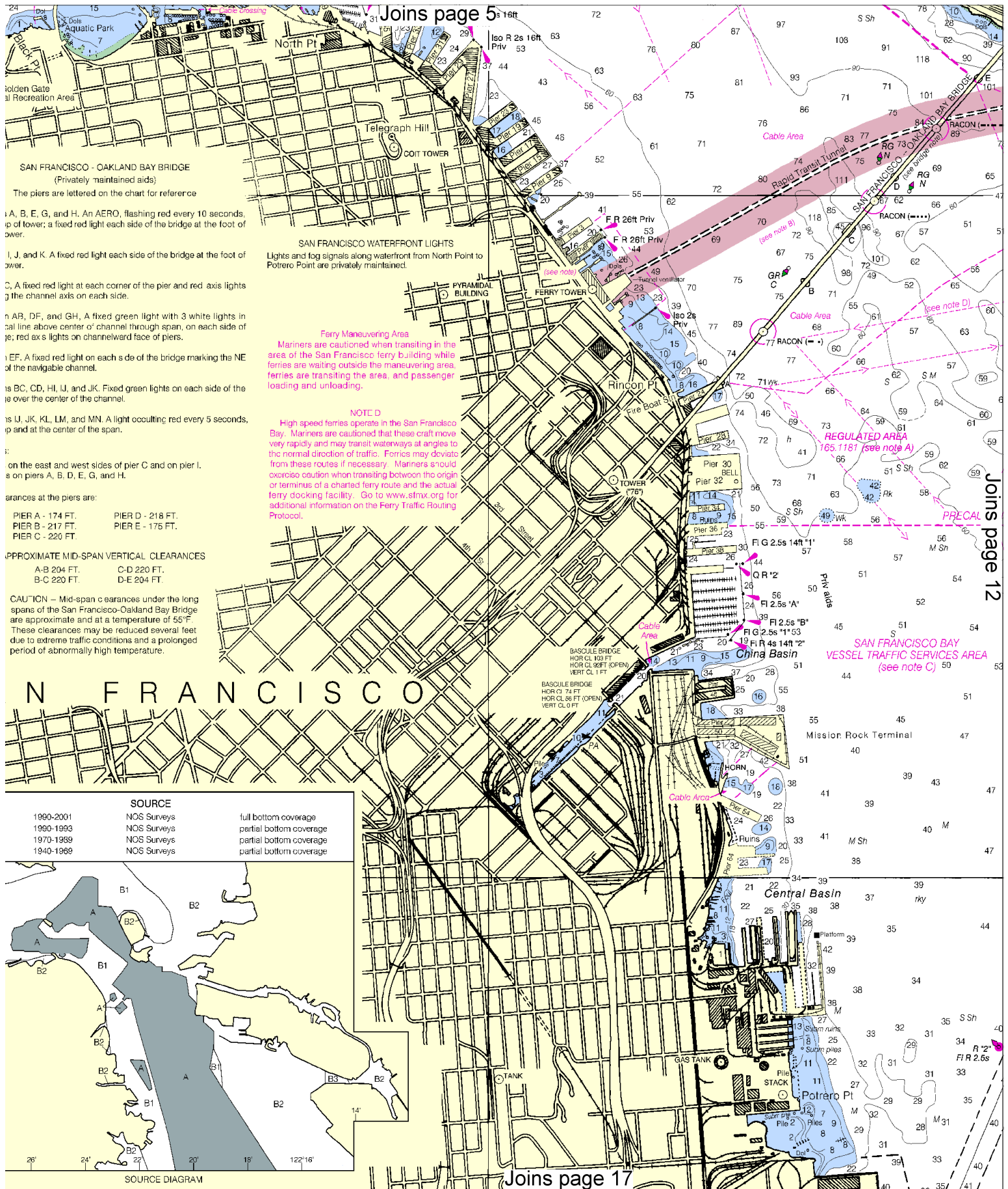


Printed at reduced scale.

SCALE 1:20,000
Nautical Miles

See Note on page 5.





SAN FRANCISCO - OAKLAND BAY BRIDGE
(Privately maintained aids)
The piers are lettered on the chart for reference

A, B, E, G, and H. An AERO, flashing red every 10 seconds, up of lower; a fixed red light each side of the bridge at the foot of tower.

I, J, and K. A fixed red light each side of the bridge at the foot of tower.

C, A fixed red light at each corner of the pier and red axis lights along the channel axis on each side.

n AR, DF, and GH, A fixed green light with 3 white lights in a line above center of channel through span, on each side of pier; red axis lights on channelward face of piers.

EF, A fixed red light on each side of the bridge marking the NE of the navigable channel.

is BC, CD, HI, IJ, and JK. Fixed green lights on each side of the bridge over the center of the channel.

is IJ, UK, KL, LM, and MN. A light occulting red every 5 seconds, up and at the center of the span.

on the east and west sides of pier C and on pier I.
s on piers A, B, D, E, G, and H.

ances at the piers are:

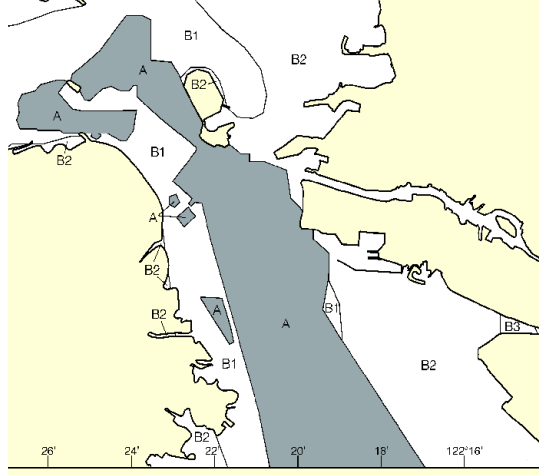
PIER A - 174 FT.
PIER B - 217 FT.
PIER C - 220 FT.

APPROXIMATE MID-SPAN VERTICAL CLEARANCES
A-B 204 FT. C-D 220 FT.
B-C 220 FT. D-E 204 FT.

CAUTION - Mid-span clearances under the long spans of the San Francisco-Oakland Bay Bridge are approximate and at a temperature of 55°F. These clearances may be reduced several feet due to extreme traffic conditions and a prolonged period of abnormally high temperature.

N FRANCISCO

SOURCE		
1990-2001	NOS Surveys	full bottom coverage
1990-1993	NOS Surveys	partial bottom coverage
1970-1999	NOS Surveys	partial bottom coverage
1940-1969	NOS Surveys	partial bottom coverage



SOURCE DIAGRAM

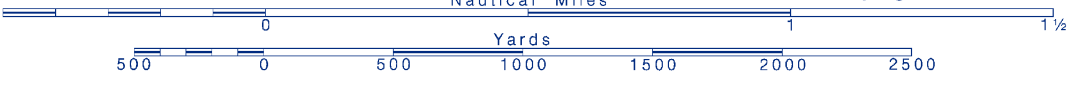
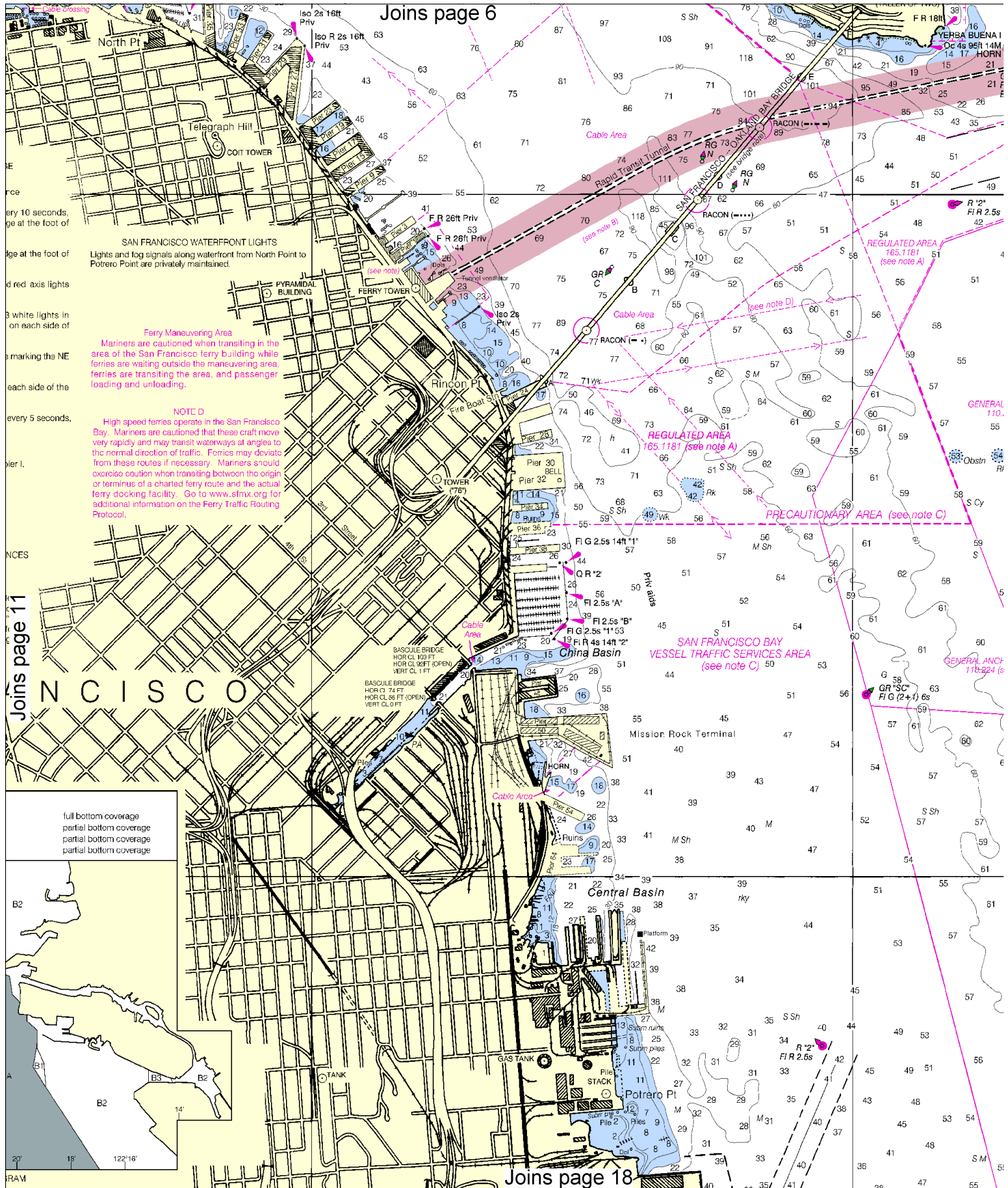
SAN FRANCISCO WATERFRONT LIGHTS
Lights and fog signals along waterfront from North Point to Potrero Point are privately maintained.

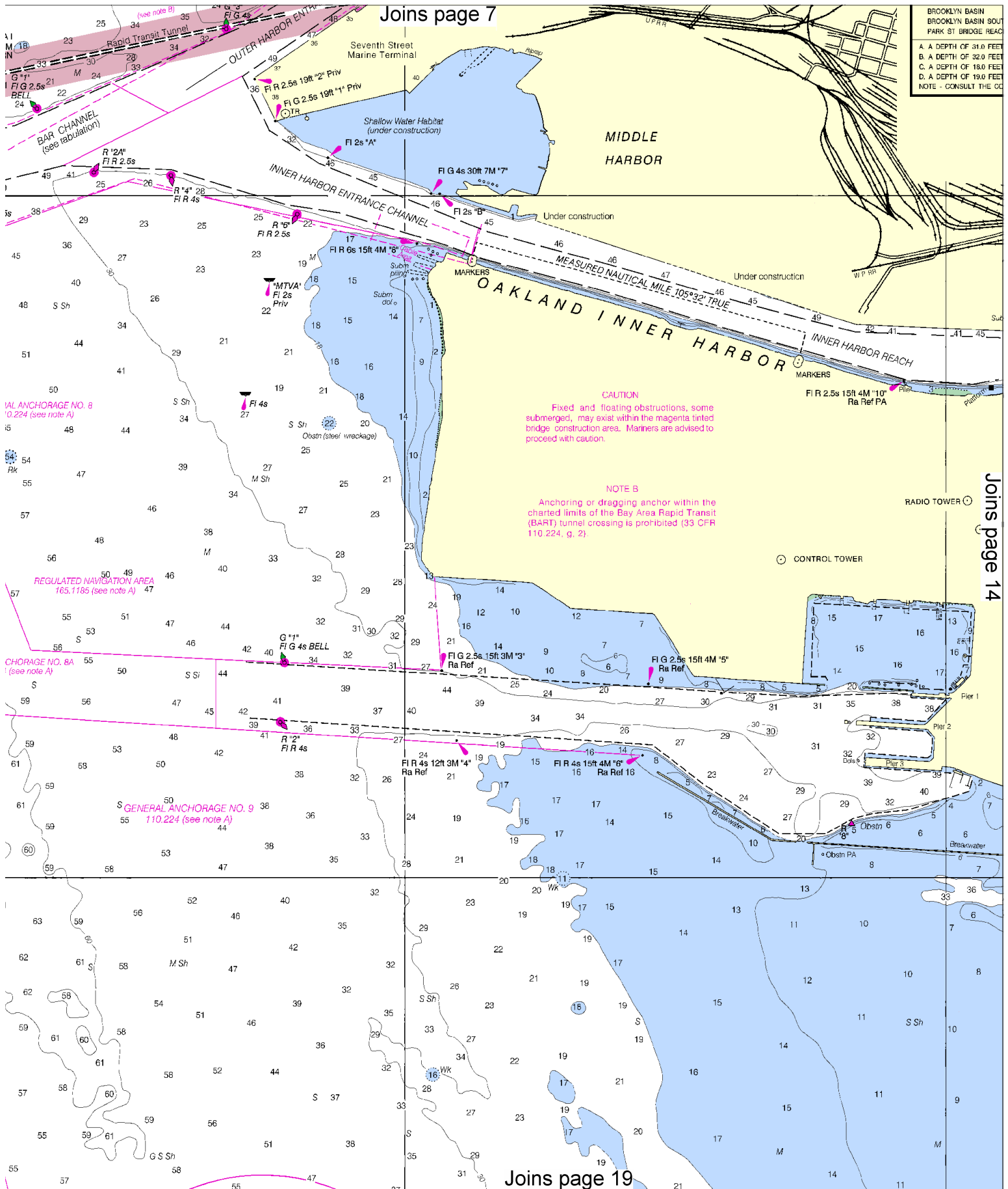
Ferry Maneuvering Area
Mariners are cautioned when transiting in the area of the San Francisco ferry building while ferries are waiting outside the maneuvering area, ferries are transiting the area, and passenger loading and unloading.

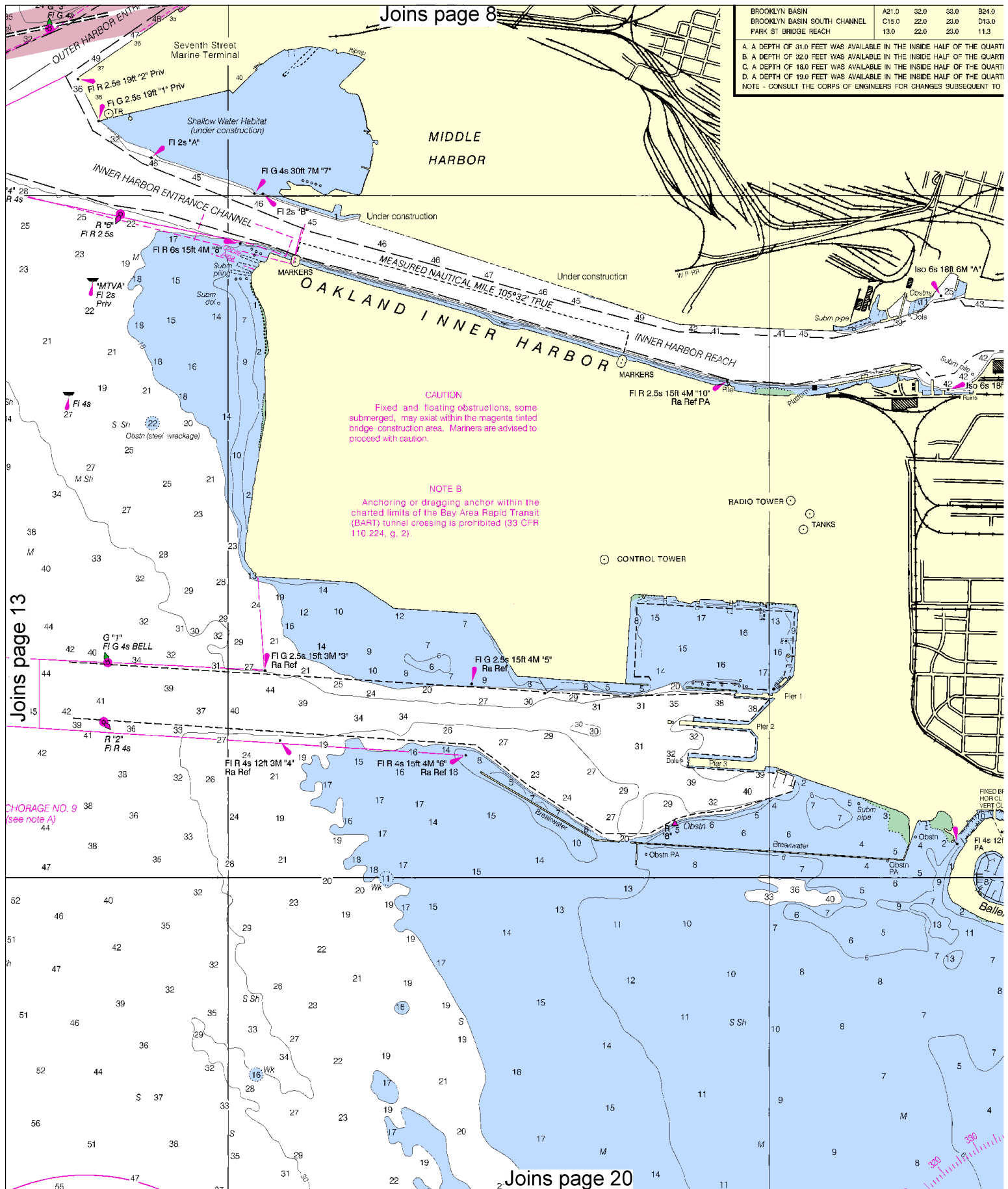
NOTE D
High speed ferries operate in the San Francisco Bay. Mariners are cautioned that these craft move very rapidly and may transit waterways at angles to the normal direction of traffic. Ferries may deviate from these routes if necessary. Mariners should exercise caution when transiting between the origin or terminus of a chartered ferry route and the actual ferry docking facility. Go to www.sfmv.org for additional information on the Ferry Traffic Routing Protocol.

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Joins page 12







BROOKLYN BASIN	A21.0	32.0	33.0	B24.0
BROOKLYN BASIN SOUTH CHANNEL	C15.0	22.0	23.0	D13.0
PARK ST BRIDGE REACH	13.0	22.0	23.0	11.3

A. A DEPTH OF 31.0 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUART
B. A DEPTH OF 32.0 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUART
C. A DEPTH OF 18.0 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUART
D. A DEPTH OF 19.0 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUART
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO



12-07-9-08	600	1.30	42
12-07-9-09	500-500	0.90	42
7-96:12-07	500-275	0.42	42

AFTER
 AFTER
 AFTER
 AFTER
 TO THE ABOVE INFORMATION

Joins page 9

SAN FRANCISCO VESSEL TRAFFIC SERVICE

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DEEP WATER ROUTE

Vessels with a draft of 45 feet or greater should use the "Deep Water Route" east of the Golden Gate Bridge. Vessels intending to use the Deep Water Route should notify San Francisco Traffic before passing Mile Rocks. Deep draft vessels will neither meet nor overtake in the Deep Water Route. Deep draft vessels bound for anchorage 9 should pass east of Blossom Rock, then through the C-D or D-E span of the San Francisco-Oakland Bay Bridge.

RECREATION AREAS

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Joins page 21

CANDLESTICK POINT TO ANGEL ISLAND

Mercator Projection
Scale 1:20,000 at Lat 37°47'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

Additional information can be obtained at nauticalcharts.noaa.gov.

TIDAL INFORMATION

NAME	PLACE (LAT/LONG)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Alcatraz Island	(37°50'N/122°25'W)	5.8	5.2	1.1
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Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>.
(Aug 2009)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rst rotating
B black	ISO isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	OC occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Rof radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Bld boulders	Co coral	gy gray	Oys oysters	sn soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rap reported	
21 Wreck, rock, obstruction, or shoal swept clear to the depth indicated.			
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.			

PLANE COORDINATE GRID

(based on NAD 1927)

The California State Plane Coordinate Grid (Zone III) is indicated by dashed ticks at 10,000 foot intervals. The last three digits are omitted.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

HEIGHTS

Heights in feet above Mean High Water.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Department of the Navy and U. S. Coast Guard.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83) and for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.260" southward and 3.891" westward to agree with this chart.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 for important supplemental information.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117. Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙ (Accurate location) ⊙ (Approximate location)

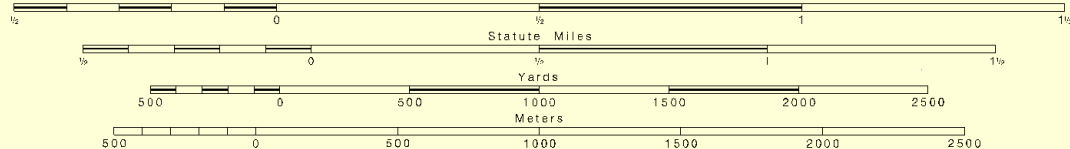
NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Mt. Pisic, CA KHB-49 162.40 MHz WX2

SCALE 1:20,000

Nautical Miles



This is
Ocean Serv
improving I
Service, NC

56th Ed., Sep. /09 ■ Corrected through NM Sep. 26/09
Corrected through LNM Sep. 15/09

18650

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

16

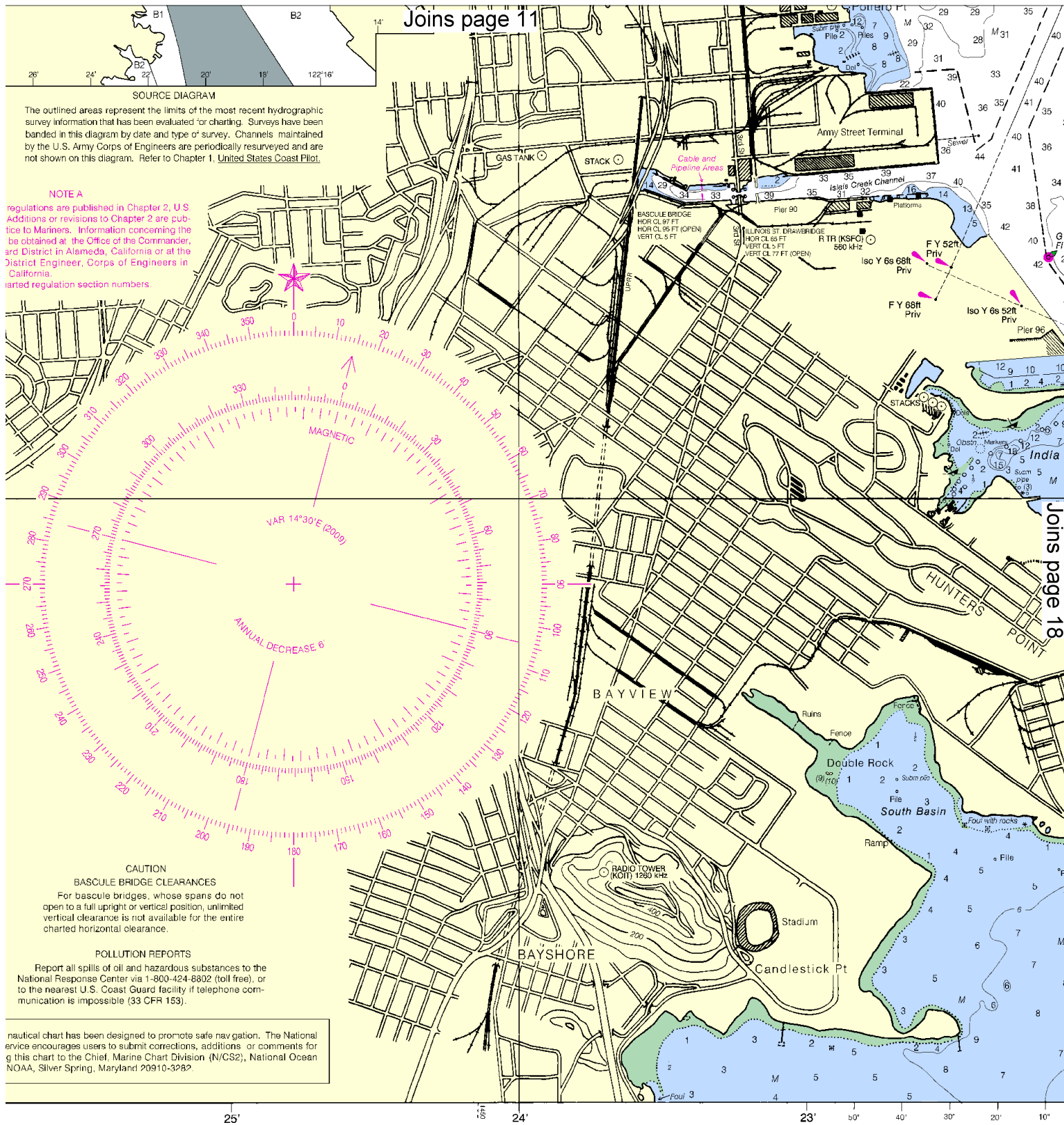


Printed at reduced scale.

SCALE 1:20,000
Nautical Miles

See Note on page 5.

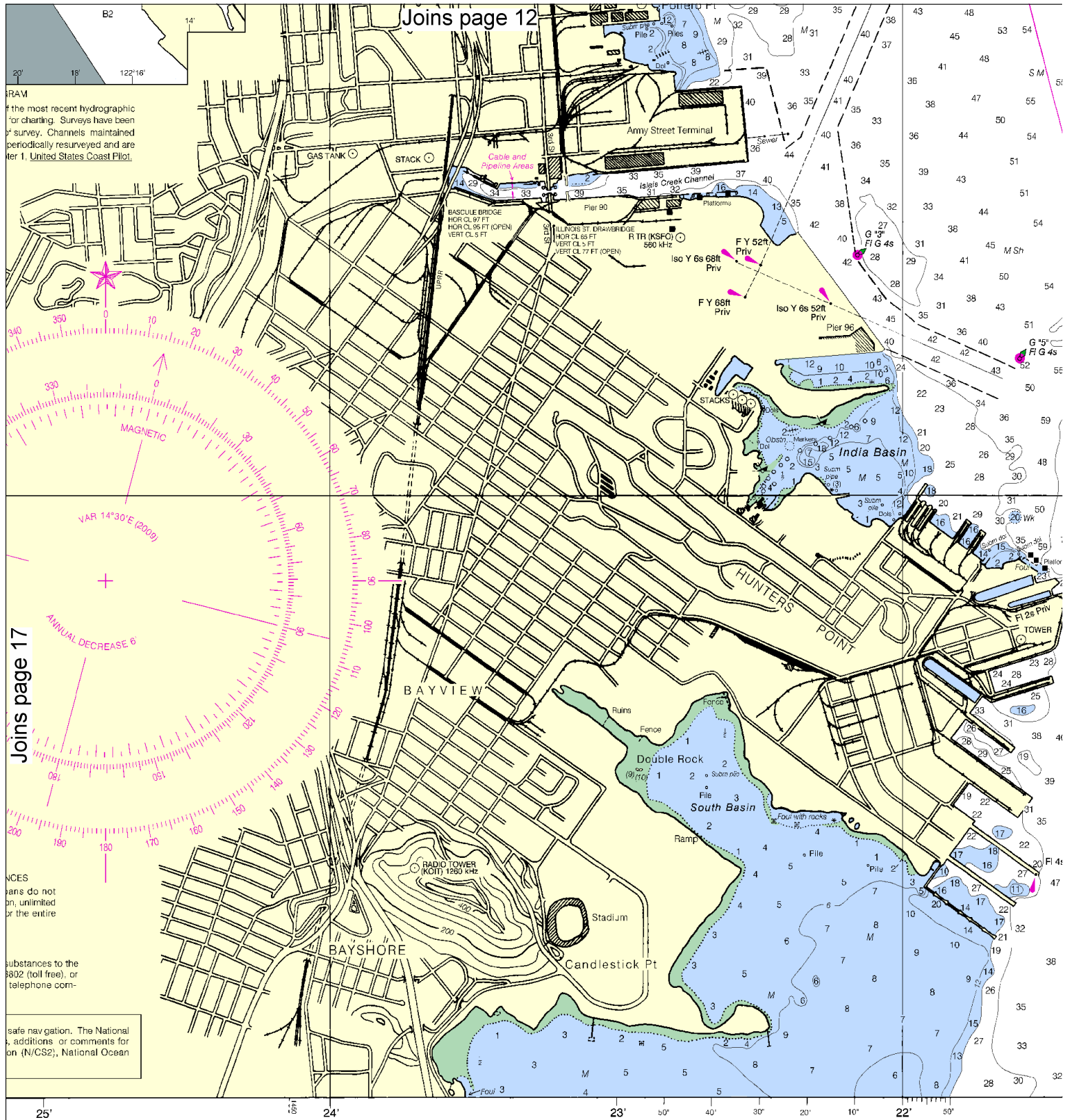




LOGARITHMIC SPEED SCALE



To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the spread is 18.0 knots



18

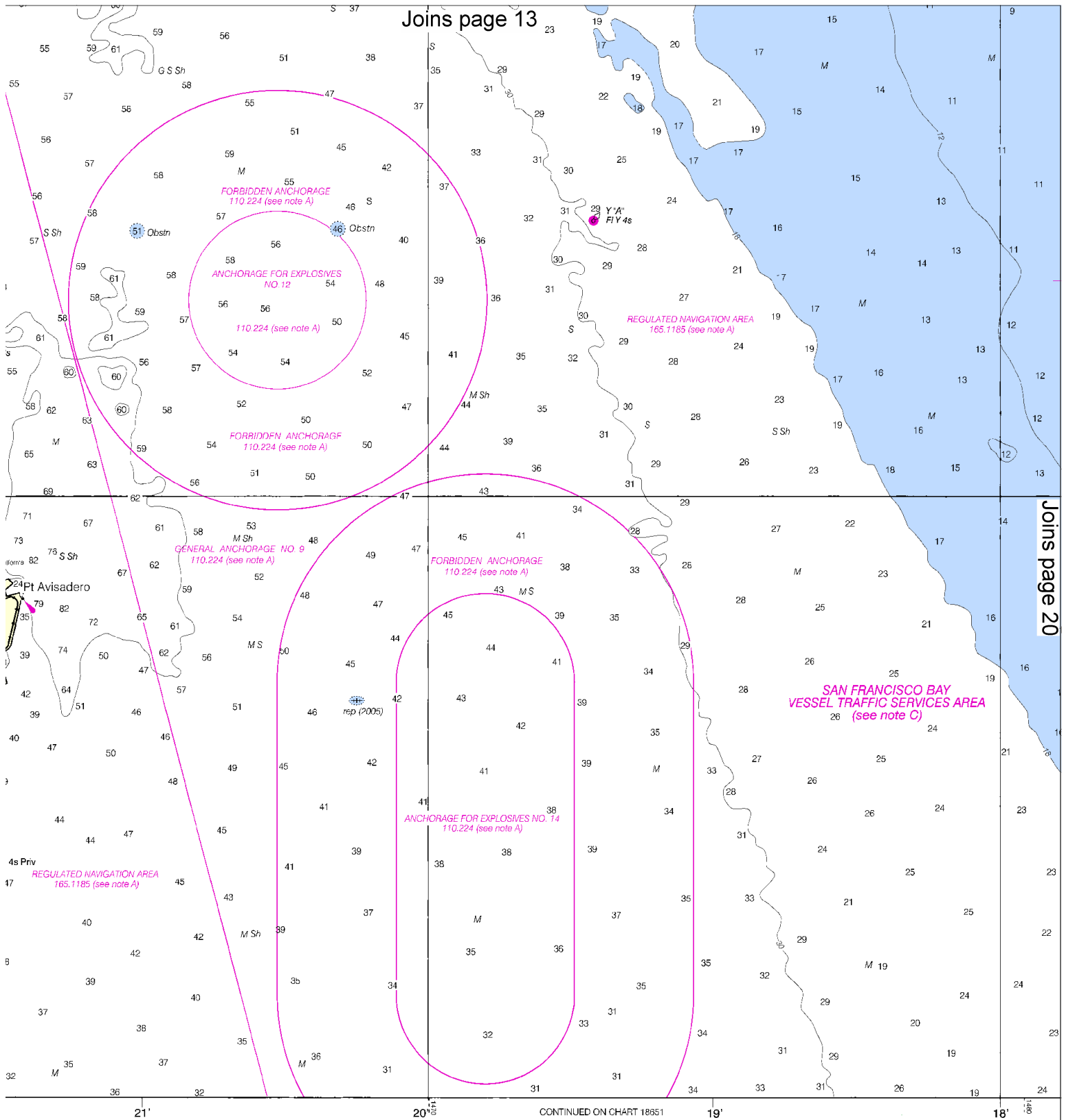


Printed at reduced scale.

SCALE 1:20,000
Nautical Miles

See Note on page 5.





U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL SYSTEM OF PUBLIC INFORMATION

PRINT-ON-DEMAND CHARTS

This chart is available in a version updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts.

SOUNDINGS IN FEET

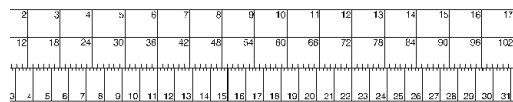
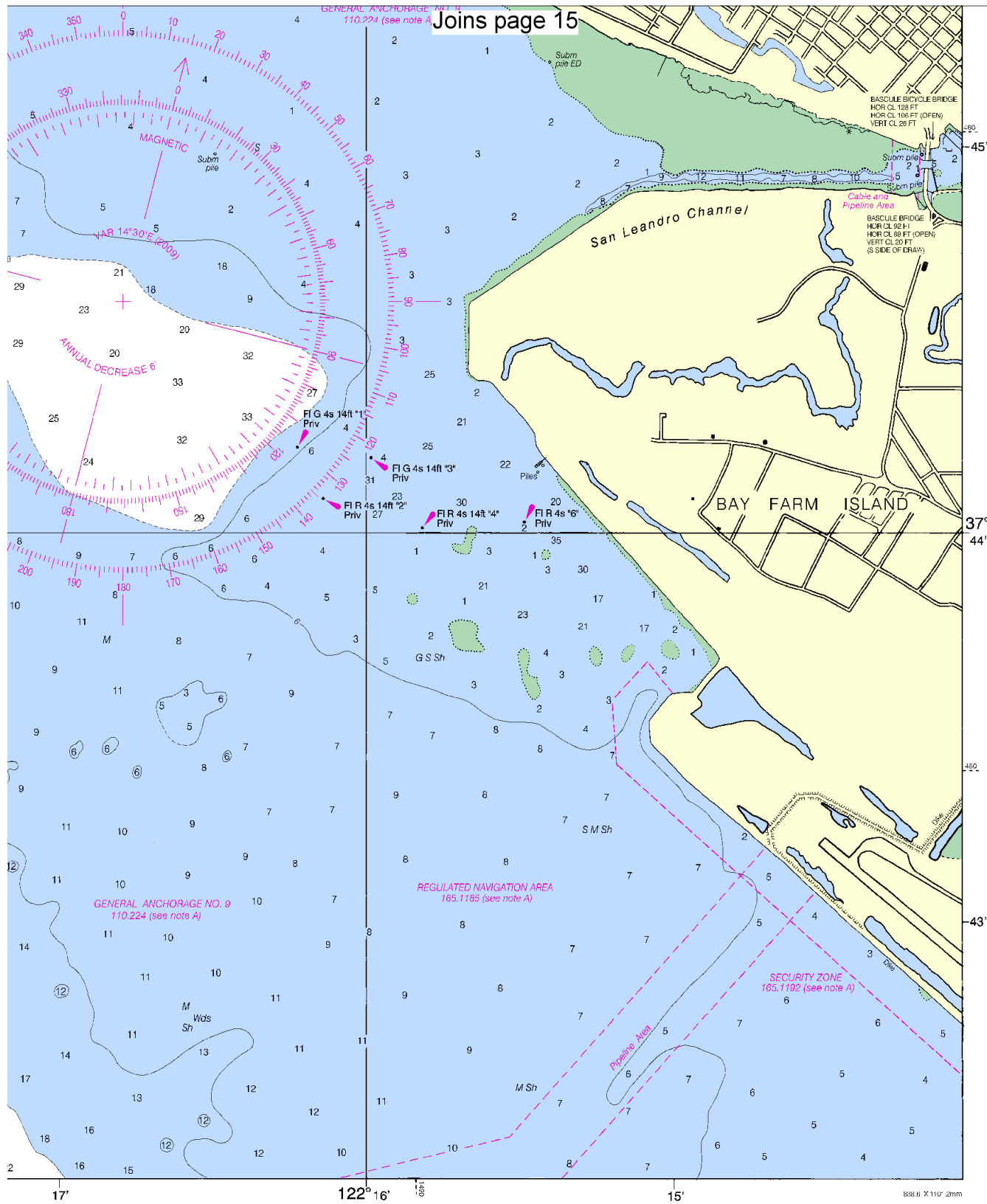
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FATHOMS	1
FEET	6
METERS	



~~SCALE 1:20,000~~
Nautical Miles

See Note on page 5.



San Francisco Bay
SOUNDINGS IN FEET - SCALE 1:20,000

18650



ED. NO. 56



NSN 7642014011523
NSA REFERENCE NO. 18A-HA18650

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 & 78A – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.

Coast Guard Search & Rescue – 510-437-3700

Coast Guard San Francisco – 415-399-3479

Commercial Vessel Assistance – 1-800-367-8222

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S., including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.NauticalCharts.NOAA.gov.

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.OceanGrafix.com.

Official Electronic Navigational Charts (NOAA ENC[®]) – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official Raster Navigational Charts (NOAA RNC[™]) – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official BookletCharts[™] – BookletCharts[™] are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is www.NauticalCharts.gov/bookletcharts.

Official PocketCharts[™] – PocketCharts[™] are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot[®] – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at www.NauticalCharts.NOAA.gov.

Official On-Line Chart Viewer – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is www.NauticalCharts.gov/viewer.

Official Nautical Chart Catalogs – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to <http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm>.

Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.